

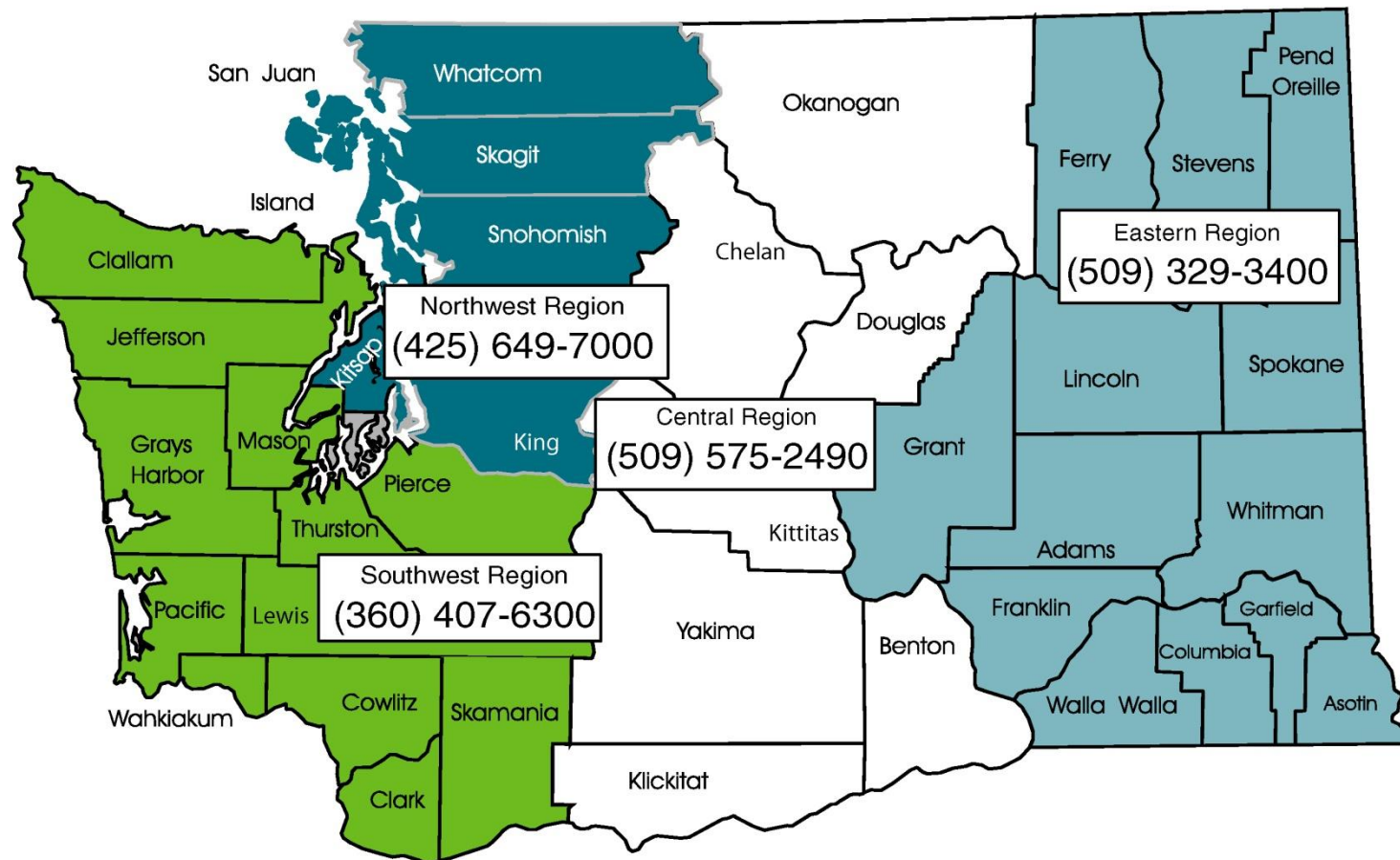


WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

Dangerous Waste Management Tutorial

Ecology staff can help

- For more help on Dangerous Waste issues, call the Hazardous Waste and Toxics Reduction staff at your local [Ecology Regional Office](#)



Ecology staff can help (cont)

- ❖ ***Compliance Inspectors*** can help with questions about your responsibilities as a dangerous waste generator.
- ❖ ***Toxics Reduction staff*** can help with questions about reducing and recycling dangerous waste.



Getting Started

You'll need these materials

❖ Dangerous Waste Regulations

- [WAC 173-303](#)

❖ For the Designation exercises

- Designation checklist*
- Material Safety Data Sheets (MSDS)* for Red Primer and Zip Strip™

*See the Attachments Folder for copies



[Note: hyperlinks only work when the slideshow is running.]

Getting Started/Feedback

❖ Attachments Folder also has

- Quick Reference Guide for DW Generators
- List of acronyms
- Emergency coordinator form
- Draft training plan
- Weekly facility inspection checklist
- Related websites
- Sample Uniform Hazardous Waste Manifest

❖ Questions about DW management?

- Call your [local Ecology office](#)

❖ Feedback on this tutorial?

- Mariann Cook Andrews at: maco461@ecy.wa.gov

Get immediate updates by joining these listservs



❖ Dangerous Waste Rules

- <http://listserv.wa.gov/cgi-bin/wa?SUBED1=DW-RULES&A=1>

❖ Dangerous waste permits

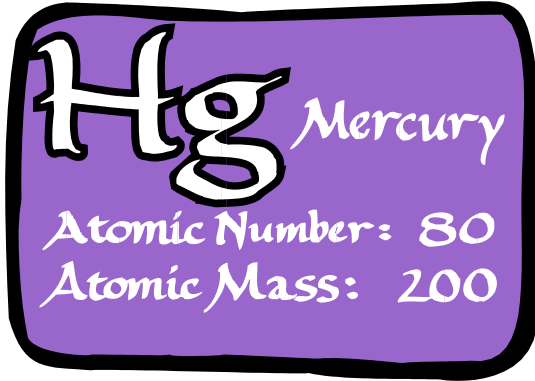
- <http://LISTSERV 15.0 - DWFACILITIES-PUBLIC-NOTICE>
List at LISTSERV.WA.GOV

❖ *Shoptalk Online*, newsletter for Dangerous Waste managers

- <http://listserv.wa.gov/cgi-bin/wa?SUBED1=SHOPTALK-NEWSLETTER&A=1>

❖ Keep your e-mail address up-to-date.

Other important rules



❖ Ban on sales of mercury-containing products

- (RCW 70.95M)
- <http://www.ecy.wa.gov/mercury>

❖ Electronic waste recycling (WAC 173-900)

- <http://www.ecy.wa.gov/programs/swfa/eproductrecycle/>



Other important rules (cont.)



- ❖ Emergency Planning and Community Right to Know (EPCRA)
 - Requires all businesses to plan for emergencies and report chemical information (WAC 118-40)
 - Part of SARA—Title III
- <http://www.ecy.wa.gov/epcra/index.html>

Dangerous Waste 101

Putting it all into context



Federal? State?

TSCA – RCRA – CERCLA – SARA/EPCRA?

How does it all fit together?

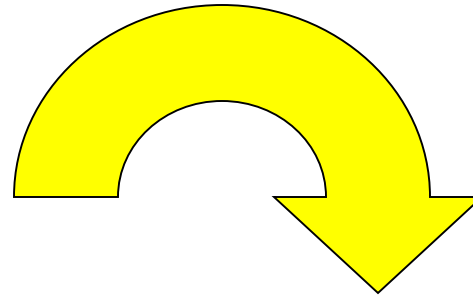
What do we mean by “cradle to grave” management?

Federal/State Laws & Rules



Washington state rules and federal rules are not exactly the same. The state adds some requirements and uses some different terms.

Federal authority delegated
to state



Then and Now

- ❖ “Dangerous” waste in “the good old days”
 - 1,200 tons manure/day in New York City
 - 13,000 dead horses/year
- ❖ People thought bad smells = disease



Dangerous Waste Now

- ❖ Tremendous growth in chemicals after WWII
- ❖ 75,000+ chemicals in use in US by 1976
- ❖ Need for a registry of chemicals
 - Provides Material Safety Data Sheets (MSDS)

Toxic Substances Control Act “TSCA” (1976)



What can go wrong

- ❖ Where to put byproducts and wastes?
- ❖ Dumping polluted rivers and drinking water
- ❖ Need to protect health from disposal

**Resource
Conservation &
Recovery Act
“RCRA” (1976)**



Cuyahoga River, Ohio on fire – again

What can go wrong

- ❖ When disposal isn't disposal
- ❖ Need to prevent the “back door” solution and “fly-by-night” transporters




**Comprehensive
Environmental
Response,
Compensation &
Liability Act
CERCLA (1980)**


What can go wrong

❖ Recontamination

ATTENTION



DEPARTMENT OF
ECOLOGY
State of Washington



Port of Olympia

You are on the former McFarland Cascade Pole wood treating site.

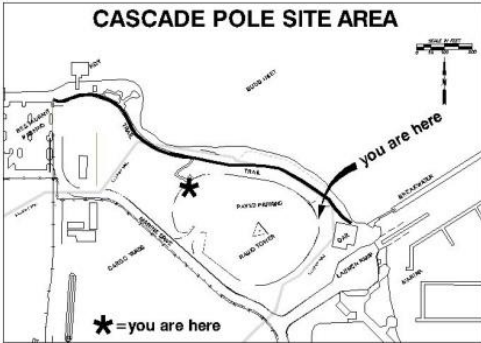
The Washington State Department of Ecology is overseeing an environmental remediation of the site under the Washington State Model Toxics Control Act.

Stay on the designated sidewalks, trails and open spaces.
Do not trespass beyond fence lines or areas of the site posted as NO TRESPASSING.
Note the warning signs concerning the shoreline and tidelands.

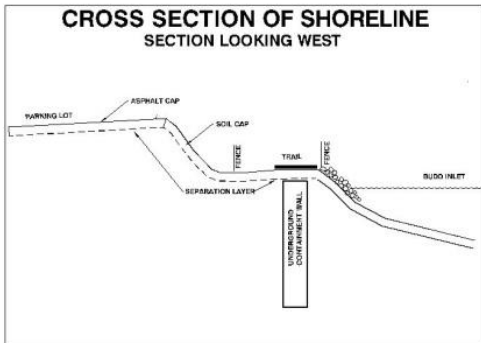
Thank you.

For additional information about the site contact: www.ecy.wa.gov or contact Washington State Department of Ecology - (360) 407- 6300
Port of Olympia - (360)528-8000 www.portolympia.com

CASCADE POLE SITE AREA



CROSS SECTION OF SHORELINE SECTION LOOKING WEST



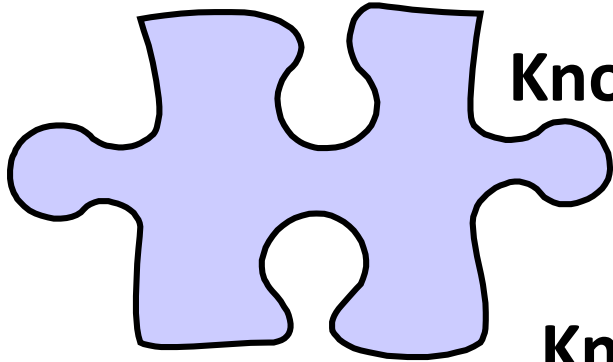
Superfund Amendments & Reauthorization Act – SARA (1986)

What can go wrong

- ❖ No fatalities, so not the worst, but still...
- ❖ You can't depend on "What usually happens is..."

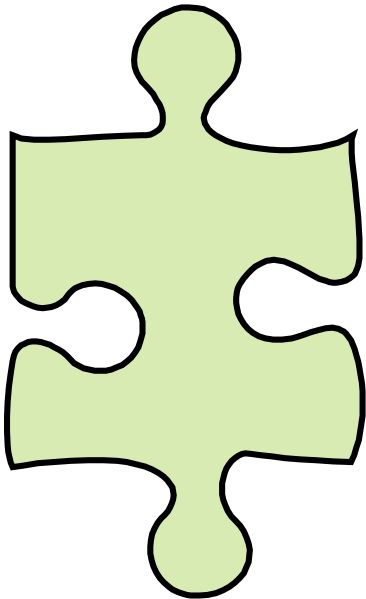
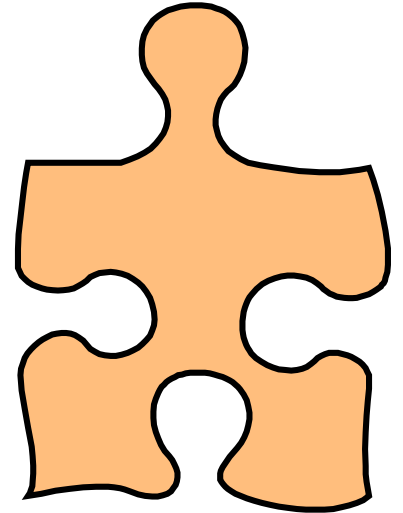


Need to Know



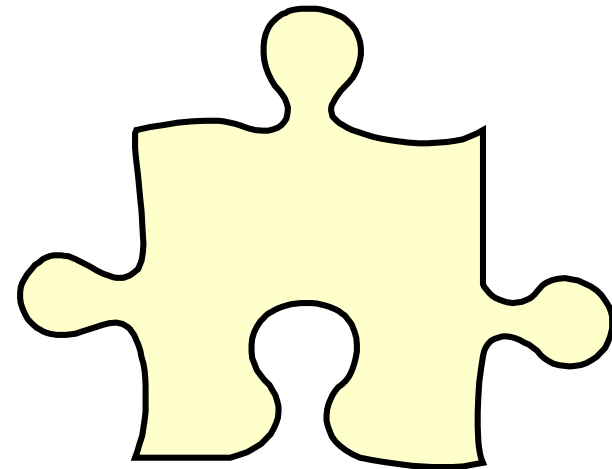
Know what you have

Know what to do with it



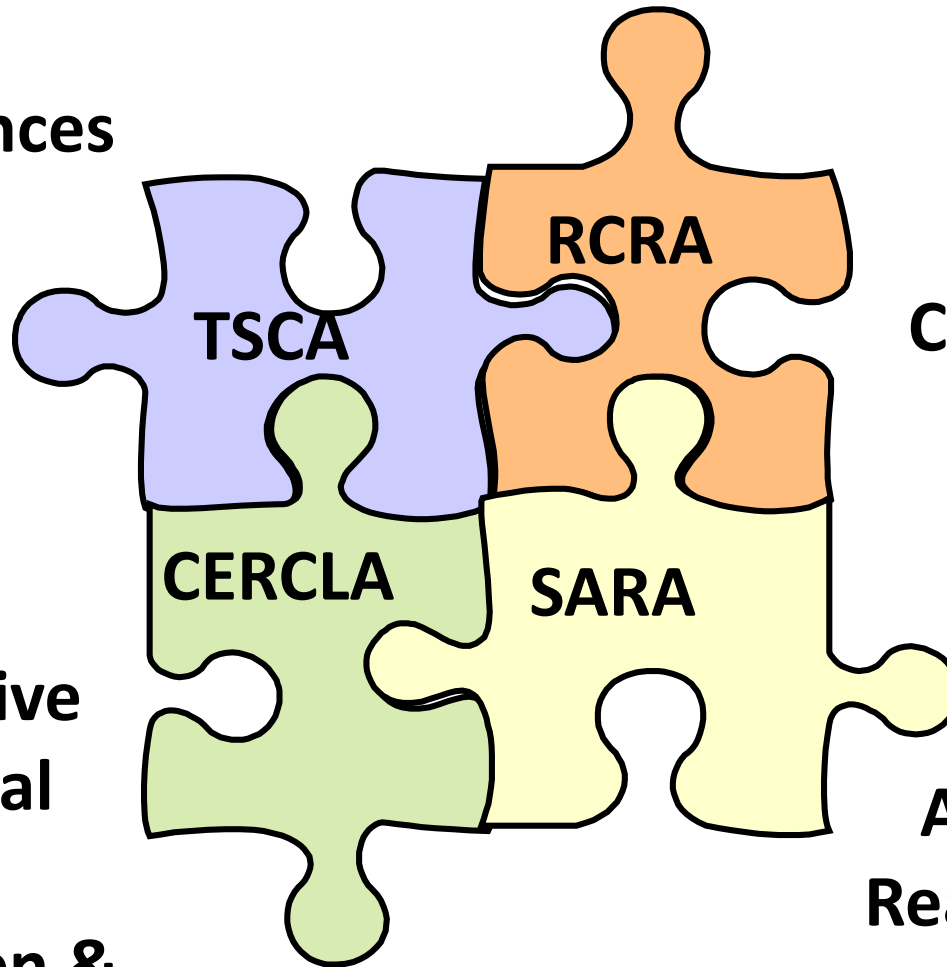
Know where it goes

Know what happens later



How it fits together

**Toxic Substances
Control Act**



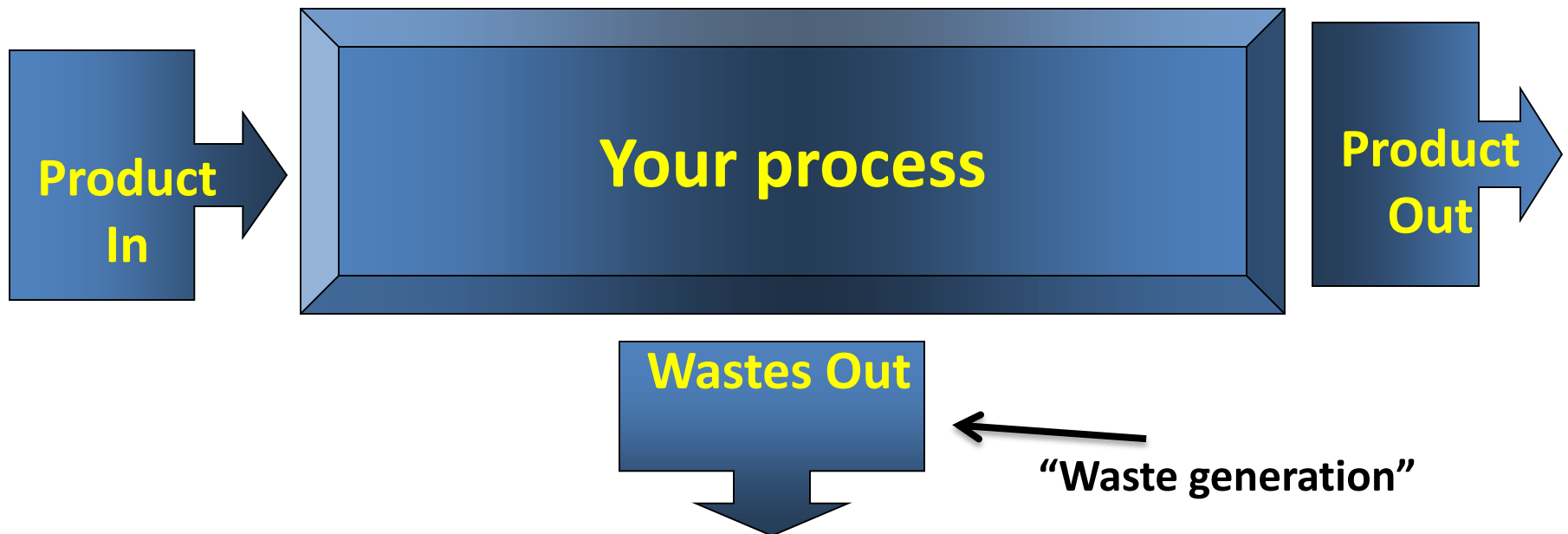
**Resource
Conservation &
Recovery Act**

**Comprehensive
Environmental
Response,
Compensation &
Liability Act**

**Superfund
Amendment &
Reauthorization
Act**

“Cradle to Grave” Management

- ❖ Know what comes in
- ❖ Know what happens to it
- ❖ Know what goes out – and where it goes



Chemicals coming in

- ❖ Product until it is used
- ❖ Waste after use
- ❖ Know what you have
- ❖ Know where it is
- ❖ Know how long you've had it



Chemicals going out

- ❖ What is it? (Identification and Designation)
- ❖ What harm can it do? (Risk labeling)
 - Tell the next guy in line (Coding)
- ❖ Manifests – the paper trail
 - Who did you give it to?
 - What did they do with it?
 - How do you know that?



Risk-based Regulation

❖ The more waste you have, and the more hazardous it is, determines your generator status.

- Small Quantity Generator
- Medium Quantity Generator
- Large Quantity Generator

❖ Your status determines what you have to do for:

- Storage
- Labeling
- Employee training
- Paperwork



How much?

- ❖ Measure your waste each month
 - Must be actual count, not an average
 - Largest monthly amount in a year = generator status for that year
- ❖ What do you count?
 - All dangerous waste on-site
 - Include waste in work areas
- ❖ What don't you count?
 - “Excluded” wastes



Dangerous Waste Rules

Ch. 173-303 WAC

❖ Use them to find out:

- How to figure your generator status
- Specifics on accumulation (storage) and labeling
- How to designate
- How to manifest for transport
- Definitions
- Lists of chemicals

